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## Teaching Ethics in a “What’s in It for Me?” World

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### Introduction

Increasingly, well-informed persons of any profession who follow the business news or politics are faced with a world in which the quick buck and short term success are the only measures of personal or professional success. There are, in reality, more consequences of belonging to the “wrong” political party than for cheating millions of people out of billions of dollars. Risking human life or the welfare of future generations often has fewer consequences than carrying a toy gun into a state building.

Teaching ethical considerations in this climate is increasingly challenging and there seems to be little reason to think that this situation will change.

However, in the event that the engineering students in the classrooms today will be designing the roads, dams, transportation systems and consumer products of the future, it behooves us to attempt this possibly Sisyphean task.

### The 4 R’s Approach to Ethical Engineering

There must be as many approaches to teaching ethics as there are engineering (and philosophy) professors. Some have found success with what might be considered a ‘fuzzy’ approach based on the concept of respect for the work and using as texts classics such as *Zen and the Art of Motorcycle Maintenance*<sup>4</sup> or *Shop Class as Soul Craft*<sup>2</sup>. Describing or inculcating values in college students is, in essence, the true goal of ethics education. However, the idea of ‘values’ has been redefined by the culture in a larger sense so it is more difficult to address than merely ethical professional behavior as an engineer. This paper describes the evolved approach currently in use—and subject to change without notice—in engineering classes at University of Wisconsin-Platteville. Specifically, this module is incorporated into an engineering management class and is a result and response to employer input.

As any good author and educator knows—we must have an acronym or catchphrase—Thus, the “4 R’s”

Recognize  
Reveal  
Replace  
Rehearse

## **Recognize:**

In order to begin any instruction, it's most useful to know where we begin. Realizing what constitutes the current prevailing ethical theory among the students can be alarming – even to them. Virtually all think that they are more ethical than the others. Yet, virtually all admit cheating on exams or assignments if there is an anonymous survey. Indeed, there is very little recognition that there might be anything amiss in this activity and, in fact, consternation and argumentation with any who voice an opposing viewpoint. The students, like most of us, admit to driving over the speed limit and many (if not most) admit to driving under the influence. In surveys over the past 10 years in class at UW-P, nearly 90% of students would substitute nonstandard or even sub-standard materials in order to keep to schedule. For the record: these students would include some Industrial engineers who could easily be determined to be operating outside their area of expertise. This survey was done using case studies both before AND after the unit on ethics. Even after clearly stating in class that, if there is a contract in place specifying specific materials and that any change must be negotiated, approximately 10% of the class will miss the same question on an exam. (Too much collaboration on study or homework, perhaps)

So, recognizing that we're not as ethical OR professional as we think we are is a start. The Baby Boomer generation probably did as much to put us on the road to accepting any possible activity under the directive that "You do your thing and I'll do mine." Or "Hey, man, it's your life..." However, even the Boomers could still be brought to their knees with the consideration of "would you want this activity on the headlines of your home town paper?" Shame and peer pressure still had some effect. Increasingly, though, in the pursuit of their 15 minutes of fame (a concept often credited to Andy Warhol but which may, ironically, have been previously described by others) TV shows and YouTube videos reveal and celebrate even activities that are illegal, dangerous, or just plain stupid and risk not only the individual 'starring' in the video but, often, the public at large.

In fact, it's pretty easy to describe the prevailing philosophy of most Americans as 'subjective relativism' which leads us to our second R.

## **Reveal**

In Reveal, we actually take a look at exactly what that prevailing philosophy means. By discussing a number of ethical theories including subjective relativism, most students are able to properly label their own philosophy as Subjective Relativism. The problem remains at this point,

in that they still see it as perfectly acceptable. Seeing the pitfalls of this often requires playing the Devil's Advocate and espousing patently dangerous activities in response to a case study. *Sure we can substitute cheaper materials that don't meet specifications—as long as I get a kickback? Sure we can remove a few deaths from the drug study if I'm going to make millions selling the drug.*

So, we must start to look at other ethical theories in order to determine if this one is the best we can do. Quinn<sup>5</sup> bases his comparison and discussion of ethical theories in logic rather than emotion and this approach is usually appealing to most engineers.

There are many ethical theories and time in an engineering management class is, realistically, limited so the actual number considered is a small subset. As an example, Social Contract theory, proposed by Rousseau,<sup>6</sup> has been dropped due to the fact that the term 'contract' has such legalistic connotations and the implied or specific employment contract is almost universally interpreted by our students to do anything that the boss says regardless of legality, safety, or morality of the action. Because so few students have any idea that most of these theories exist, omission of one seems to cause no issue.

We use the theories represented in the table below along with a brief definition and some positive and negative aspects of the theory in application. Given the short time available in the context of the course, it is impossible to fully cover any ethical theory in the depth that would be possible in a Philosophy course. However, the philosophy department does cover them in detail but, sometimes, loses the application to technical fields in the same details. Something of a Hobbesian choice, perhaps?

The fact that both Subjective and Cultural Relativism allow virtually any activity or behavior to be labeled 'ethical' somewhat reduces their appeal. Surely, I, myself, personally am capable of using this theory wisely but, trusting others with it is less appealing and reassuring. Either theory fails to distinguish between the actions of Mother Theresa and either Adolf Hitler or Stalin. If it's good for ME doesn't seem quite as appealing by now.

Divine command is often at the heart of what mid-western students would use if they're forced to do something besides any relativism and, in fact, it's quite appealing. Well, it is appealing except for the fact that there are different views of God in a multicultural society. The current world situation in which some religions tout the dictate from god to eliminate all non-believers dampens enthusiasm for Divine Command.

Utility theory is also appealing. The idea of the ‘greatest happiness’ or ‘greatest good’ is hard to knock. But we all seem to define and calculate ‘good’ differently. Too, there is the question of whose happiness is more important? Do future generations count at all? Who is impacted by building a dam? Who benefits? How do we consider other life forms? Or do they count at all?

<b>Theory</b>	<b>Brief Definition (given in ‘engineer’ terms)</b>	<b>Pros</b>	<b>Negatives</b>
Subjective Relativism <sup>5</sup>	It’s what “I” think is right.	Appealing. Intuitive.	Difficult to separate ‘want’ from right
Cultural Relativism <sup>5</sup>	The decision is acceptable to MY cultural group.	Appealing. Intuitive. Cultural differences.	Mob mentality. Peer pressure.
Divine Command <sup>5</sup>	God is good so if God says it’s good, the action is good.	Some universal ‘laws.’ Decalogue	Different gods, books, and directives.
Utility Theory <sup>5</sup>	The decision or alternative that results in the greatest happiness for all those affected is right.	Logical. Appealing.	Math is difficult. Who is included? Who is excluded? Weight of death?
Kant <sup>3</sup>	Act only according to that maxim whereby you can at the same time will that it should become a universal law without contradiction. Act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means to an end, but always at the same time as an end.	Logical. Rational. Can be explained.	“Universality” is difficult to envision.  So accustomed to “using” that we don’t even realize it or recognize it as wrong.  Conflict between rules are difficult.
Virtue Ethics <sup>1</sup>	Each virtue lies on a continuum and ‘good’ is between absence and excess.	Logical Does allow for different values at different times. Too much honesty?	Identification of excess & absence is difficult.

Kant's Categorical imperative<sup>3</sup> can be useful. The first is to use as a rule any rule which we could WILL others to use in any similar situation, The second statement is that we must not use people as a means to an end but recognize their worth as ends in themselves.. The issue I've found in the first categorical imperative is that, as a culture, we rarely even recognize when we are 'using' others. We are merely doing our own thing and they are there. Cheating on a test by copying really uses both the instructor and the neighboring student as a means to get a higher grade/degree/better job. It can be considered as cheating the employer and, depending upon field and duties, endangering public safety for personal gain. Admittedly, this is a hard sell for each individual who wants to use others but not be used themselves.

The final theory we include is Aristotle's Virtue Ethics<sup>1</sup>. WE find that the fact that Aristotle is an ancient (dead!) Greek is both a positive and a negative in discussion. Ancient Greek civilization is held by many in awe while others view it as 'dead white guys and good riddance.' The greater problem with Virtue Ethics is that, like Kant's categorical imperative, we no longer have a real idea of what 'virtue' means so we have to pull in references to find a definition. Fortunately, Aristotle seemed to anticipate this and delineated these in *Nicomachean Ethics*.<sup>1</sup> As we strive for the golden mean in each 'virtue' we can identify some of the virtues and find guidance for many personal problems. Thus, the mean of "courage" can be found between foolhardiness and timidity. Temperance falls between licentiousness and insensitivity. (Any one of those words is guaranteed to stump at least half the class on exam—even if you warn them it will be there.)

## **Replace**

At this point, it's instructive to have each student develop their own statement of ethical theory before going any further. Then, compare that statement to the theories discussed and identify any weaknesses in the theory.

Before considering subjective relativism as replaced entirely, a visit to the professional ethics codes is essential. Because my classes contain engineering students of several different majors, the assignment requires that they investigate the ethical code of the NSPE<sup>7</sup> as well as one other engineering professional organization. These are almost always very similar and, in some cases, may well be virtually identical. However, none of these professional codes of conduct allows the engineer to easily follow the "If it's good for me that's all that matters" philosophy of Subjective relativism.

The professional codes mandate primary consideration for public safety, representation of the organization, unbiased consideration of others, giving credit to others for their work, and honesty

in all work. These are anathema to the subjective relativism of getting ahead or making more money regardless of the effect or cost to others.

## **Rehearse**

This step is just to provide some practice in applying different ethical theories to proposed situations and discussing the impact. Even applying the professional codes is not as straightforward as we might expect. Guiding principles must be broadly stated yet situations are specific. Does honesty mandate giving an honest evaluation of all workers in your group even if one is obnoxious yet does good work while another is a joy to have around but does nothing? Or is it better to give all the same rating? Does the unbiased assessment include evaluation of resumes?

A review at this point of the NSPE professional ethics criteria leads to discussion of current and specific problems that engineers and managers regularly face at work. The code is sufficiently vague to allow application to a wide range of issues but does provide guidance for such things as time charging, honesty, bias, credit grabbing, information hiding, misrepresentation, conflict of interest, work outside the field of expertise, and use of company resources and time. These seem to represent as well, the vast majority of issues that have been identified by employers as problematic.<sup>5</sup>

Fortunately or unfortunately, there are new stories in the media every semester which allow us to discuss current events while applying ethical theories to realistic situations.

## **Conclusion**

Use of the 4 Rs in teaching ethics does not guarantee ethical performance by any graduate of the class—regardless of grade in the class. It does provide a framework for decision making in the future and begins to inform the student that, while “you do your think and I’ll do mine” seems appealing, trusting others’ judgment without any guidance is not comforting.

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